http://www.nrlmry.navy.mil/port_studies/thh-nc/guam/apra/text/sect2.htm

APRA HARBOR, GUAM

2.2 PORT FACILITIES

Apra Harbor is an improved, natural basin that consists of an Outer Harbor and an Inner Harbor (Figure II-6 and Figure II-7). Orote Peninsula, which projects 3.5 nmi west-northwestward from Guam's west coast, forms the southern boundary of the Outer Harbor. A breakwater that is partially man made forms the northern side of the Outer Harbor. The man made portion of the breakwater lies west of Cabras Island and is called the Glass Breakwater. A light (black and white checkered diamond on post, radar reflector) (13°27.2'N 144°37.4'E) is exhibited from Glass Breakwater. The average height of the breakwater is approximately 15 ft (4.6 m) above mean sea level. The Inner Harbor extends southward from the eastern part of the Outer Harbor . Hills east and southeast of the port provide a limited windbreak for winds from those directions, but Apra Harbor is not a sheltered port.

The west-facing entrance to Outer Apra Harbor is 500 yd (457 m) wide and over 100 ft (30.5 m) deep. The Outer Harbor is large and contains several mooring buoys and piers.

Although the Outer Harbor has many areas where depths exceed 100 ft (30.5 m), it also contains several clearly marked shoal or reef areas. They are located primarily in the eastern portion of the Harbor, close to the entrance to the Inner Harbor. While these shallow areas pose only a limited threat to normal operations, they are a significant hazard that must be considered if maneuvering in the Harbor is required during periods of heavy weather. Both military and commercial vessels use buoys and anchorages in the Outer Harbor. Some individual berths are designated for use by the Commercial Port.

Guam's Commercial Port is situated on Cabras Island in the Outer Harbor. The Port Authority of Guam, an autonomous agency of the Government of Guam, is responsible for the management of the Port's 33-acre site. The Port has 2,650 ft (808 m) of docking space for container, break-bulk, fishing, and passenger vessels. The Port Authority owns and operates 5 cargo-handling piers and also owns two fuel piers, three marinas and a harbor of refuge. The Guam Economic and Development Authority (GEDA) administers the Cabras Island Industrial Park adjacent to the Commercial Port. Waterfront facilities include a fuel wharf and docking space for a floating drydock and tug boats.

Foxtrot #3 berth is used for general cargo, passenger vessels, and fishing vessels. The length is 750 ft (229 m) with an 85 ft (26 m) wide paved area in front of a shed. The depth alongside is 34 ft (10.4 m). Foxtrot #4, #5, and #6 berths (container and general cargo) may accommodate two full container vessels, three smaller break-bulk and container vessels, and other smaller vessels (60-200 ft (18-61 m)). Reconstruction was completed in 1998 after the severe earthquake damage in 1993. The total length of the berths is 1970 ft (600 m) and the alongside depths range between 34 ft (10.4 m) and 38 ft (11.6 m). Hotel Wharf is used primarily for passenger and fishing vessels and secondary

for general cargo. The length is 500 ft (152 m) with a depth alongside of 34 ft (10.4 m). The Golf Pier is used for liquid bulk tankers and is operated by Mobil Oil, Guam. The length is 370 ft (113 m) with an alongside depth of 50 ft (15.2 m). The F-1 Pier is used for liquid bulk and LP Gas. It is operated by Shell Oil, Guam and has a length of 550ft (168 m). The depth alongside is 70 ft (21.3 m).

It was noted during the 2006 Site Visit to Apra Harbor that Military Sealift Command Maritime Prepositioning Ship Squadron Three (MPSRON THREE) ships moor at or near Buoy 702 in the Outer Harbor. Port Ops and MSC representatives stated further that MSC ships constitute 70-80% of the traffic in the Harbor and that there are about 180 ship visits per year. It was also pointed out that there is only one pre-positioned ship in Guam at any one time.

Most of the U.S. Navy berthing facilities at Apra Harbor are located at Naval Activities (NAVACTS), Guam on the west side of the Inner Harbor (Figure II-7). Notable exceptions include the submarine tender USS FRANK CABLE (AS 40) that is home ported at Apra Harbor and moored with its stem to Wharf A at the southwest end of Polaris Point (Figure II-8); Wharf B that is adjacent and to the left of Wharf A (Figure II-9); the Fleet Industrial Supply Center (FISC), which occupies Wharf X (Figure II-10) in the southeast part of the Inner Harbor; Wharves D and E on the western end of Drydock Point in the Outer Harbor (Figure II-6); and Wharf K on the south side of the Outer Harbor near Apra Harbor's entrance. Wharves A and B have a deck height of 10 ft (3.1 m) and Wharves D and E have a deck height of 11 ft (3.4 m).

Local harbor authorities stated that Wharf K in the Outer Harbor is the only ammunition-handling wharf. Wharf K is located on the south side of the Outer Harbor, approximately 1,200 yd (1,097 m) east of the Harbor Entrance (Figure II-6). As of the Site Visit in February 2006, Wharf K was closed for renovation. The plan is to double the size of the Wharf and be completed in 2008 or 2009. Figure II-11 , Figure II-12 , Figure II-13 , and Figure II-14 show Wharf K sequentially from the dolphin on the western side to the dolphin on the eastern side. Figure II-15 provides a view of the Yokohama fendering. As a result of dredging, depths alongside Wharf K are now 45 to 50 ft (13.7 to 15.2 m). Wharf K has a deck height of 17 ft (5.2 m). Note that Wharf K can be impacted by winds and waves and that using small boats to run mooring lines to the dolphins can be hazardous. Local authorities also stated that the explosives anchorage shown north of Wharf K no longer exists.

Future improvements commencing in 2006 include strengthening of Wharf B, extending Wharf B 160 ft (48.8 m) to the north, and dredging to increase the alongside depth to 40 ft (12.2 m).

A drydock is positioned just outside the Inner Harbor at the Guam Shipyard (Figure II-7). The former Navy dry dock known as “Big Blue” is capable of docking ships that weigh up to 40,000 Long Tons.

The Inner Harbor is entered from the southeast portion of the Outer Harbor through a passage between Polaris Point on the east and the Guam Shipyard on the west (Figure II-7). Vessels entering the Inner Harbor are limited to a maximum draft of 32 ft (9.8 m).

Descriptions of berths in Inner and Outer Apra Harbors are listed in Table II-1 (revised February 15, 2006). Berth lengths and pierside depths are as reported by U. S. Navy Apra Harbor Port Services personnel.

Wharves A, B, R, S, and Berths #T2 and T3 have sufficient depths alongside and have been used for both CGs and DDGs. Wharf R (Figure II-16), Wharf S (Figure II-17 and Figure II-18), and Wharf T (Figure II-19) have deck heights that range from 6-10 ft (1.8-3.1 m). Figure II-20 provides a view of Wharves R, Q, and P from left to right and Figure II-21 provides a view of Wharves O, N, and M from left to right. The drydock pictured at Wharf P was scheduled to be moved to Saipan in 2006. Yokohama fendering, as pictured in Figure II-22, is used extensively in the Port. Port officials indicated Wharf N had super strong moorings and is the best pier to use during shipyard availabilities when a ship is unable to get underway.

Most of the wharves in the Port are structurally sound. However, Wharf U (Figure II-23) is damaged beyond repair and is unusable. Wharf L's structural integrity is also questionable with bits and bollards that are unsafe and in need of repair.

The Commander, U.S. Coast Guard Marianas Section is located at Victor Wharf on the COMNAVMARIANAS Main Base (Figure II-24 and Figure II-25) and includes the Marine Safety Department, USCGC SASSAFRAS (WLB 401), and USCGC GALVESTON ISLAND(WPB 1349). Wharf Victor has a deck height of 5 ft (1.5 m).

In addition to the berths listed in Table II-1, a total of 21 mooring buoys exist in the Inner and Outer Harbors. According to local harbor authorities, none are suitable as typhoon moorings for large vessels. Buoys #1 through #4 are used by yard craft only.

The Outer Harbor has many deep draft anchorages. Holding quality is excellent on a bottom of sand, coral and rocks. Large aircraft carriers have anchored in the Outer Harbor on infrequent occasions in the past, but they would do so now only in an emergency because the entrance to the Harbor is fouled by the required swinging diameter of the carrier. According to the U. S. Navy Harbor Master at Apra Harbor, a large aircraft carrier needs a minimum 500 yd (457 m) swinging radius when using 450 ft (137m) of chain.

A Fleet Landing for visiting ships is established on a finger pier located at the southwest end of Wharf U adjacent to berth U-2 (Figure II-26).

Pilots are required for most vessels entering or leaving Apra Harbor. The U. S. Navy Harbor Master states that the only exceptions are fleet tugs and salvage ships because of the improved maneuvering ability provided by their twin-screw propulsion.

Pilotage is compulsory for U.S. flag merchant vessels over 1,500 grt, foreign flag merchant vessels over 500 grt, and all merchant vessels after sunset. The commercial pilot, who requires a 4-hour advance notice, boards 2 nmi west of the Harbor Entrance at Alpha Hotel (unmarked approach point identified on Chart # 81054).

The use of a Licensed Pilot in the Apra Harbor is not mandatory for U.S. Navy ships or foreign navy ships. When a pilot is used, it should be noted that the pilot who assists is the servant of the vessel and does not relieve the Commanding Officer or Master of responsibility for the safety of the vessel. Pilots for Navy ships will normally board in the vicinity of the middle ground in the Outer Harbor (13°27.08'N 144°37.87'E). If asked, the pilot will board at Alpha Hotel. Departing vessels will have priority in assignment of tugs and pilots over inbound vessels. All pilots normally disembark in the Outer Harbor. Requests for pilotage, assignment to berths/anchorages and such services as tugs, pilot, fuel, etc., should be made by LOGREQ at least 96 hours prior to the time services are required.

As of the Site Visit in February 2006, the Navy had two operational 3200 hp tugs (Figure II-27) with a commercial contract in place to use up to two Cabras Marine Corporation tugs rated at 2800 hp. Aircraft carriers normally use four tugs. Cabras Marine Corporation has four pilots that can be used for Navy ships. The working frequency for commercial ships is VHF Channel 13 and for Navy ships is VHF Channel 14.